

Claims

1. A complex of the general formula

5

$D_2 - M - T$

where

D is a β -diketone,

M is a metal atom selected from the group consisting
10 of Cr, Cu, Mn, Fe, Ni, Co, Zn and Mo,

T is a substance having at least one N-, O- or
S-containing group, and

where M participates in an electron donor-acceptor
interaction with T, and M in the complex has a free
15 coordination site.

2. The complex as claimed in claim 1, characterized
in that D is selected from acetylacetone and its higher
alkyl analogs, dibenzoylmethane and diethyldithio-
20 carbamine.

3. The complex as claimed in claim 1 or 2,
characterized in that T is a substance having at least
one NH_2 , NH, N, O or S group.

25

4. The complex as claimed in any of claims 1 to 3,
characterized in that T is a substance selected from
the group consisting of 2,4-dihydroxy-5-fluoro-
pyrimidine, 5-fluoro-1-(tetrahydro-2-furyl)uracil
30 (tegafur), 2-[bis(2-chloroethyl)amino]tetrahydro-2H-
1,3,2-oxazephosphorine 2-oxide, 1,2-imidopropanoic
amide, 2-hydroxymethyl-5-hydroxy- γ -pyrone,
2,4,6-trimethylpyridine, 2,4,6-tri-2-pyridyl-
1,3,5-triazine, 4-[bis(2-chloroethyl)amino]-L-phenyl-
35 alanine, 2-(3-pyridyl)piperidine, 2-2'-bipyridine,
2-methyl-(5-trimethylbutyl-1-ol-3)pyridine,
2-methyl-(3-dimethylamino-1-propynyl)pyridine and
2-methyl-5-ethylenepyridine.

5. The complex as claimed in any of claims 1 to 4, characterized in that D is acetylacetone, M is Cu and T is a substance selected from the group consisting of 2,4-dihydroxy-5-fluoropyrimidine, 5-fluoro-1-(tetra-
5 hydro-2-furyl)uracil (tegafur), 2-[bis(2-chloroethyl)-amino]tetrahydro-2H-1,3,2-oxazephosphorine 2-oxide, 1,2-imidopropanoic amide, 2-hydroxymethyl-5-hydroxy- γ -pyrone, 2,4,6-trimethylpyridine, 2,4,6-tri-2-pyridyl-1,3,5-triazine, 4-[bis(2-chloroethyl)amino]-L-phenyl-
10 alanine, 2-(3-pyridyl)piperidine, 2-2'-bipyridine, 2-methyl-(5-trimethylbutyl-1-ol-3)pyridine, 2-methyl-(3-dimethylamino-1-propynyl)pyridine and 2-methyl-5-ethylenepyridine.

15 6. The complex as claimed in any of claims 1 to 4, characterized in that D is acetylacetone, M is Mn and T is a substance selected from the group consisting of 2,4,6-trimethylpyridine, 2,4,6-tri-2-pyridyl-1,3,5-triazine, 2-2'-bipyridine, 2-(3-pyridyl)piperidine,
20 1,2-imidopropanoic amide and 4-[bis(2-chloroethyl)-amino]-L-phenylalanine.

7. The complex as claimed in any of claims 1 to 6, characterized in that it has antitumor activity.
25

8. A pharmaceutical composition comprising at least one complex as claimed in any of claims 1 to 7.

9. The pharmaceutical composition as claimed in claim
30 8 for the treatment of tumors.

10. The use of a complex as claimed in any of claims 1 to 7 for producing a pharmaceutical composition for the treatment of tumors.